

# INFORMATION DISCLOSURE CITATION

PTO-1449

 ATTY. DOCKET NO.  
A-66566-3/RFT/RMS/  
RMK

 SERIAL NO.  
09/440,371

 APPLICANT  
BLACKBURN et al.

 FILING DATE  
November 12, 1999

 GROUP  
1643

## PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
Ch	A	4,707,352	11/17/87	Stavrianopoulos	—	—	
Ch	B	4,707,440	11/1987	Stavrianopoulos	435	6	
Ch	C	4,711,955	12/8/87	Ward, et al.			
Ch	D	4,755,458	7/5/88	Rabbani, et al.			
Ch	E	4,849,513	7/18/89	Smith, et al.	536	27	
Ch	F	4,868,103	9/19/89	Stavrianopoulos, et al.			
Ch	G	4,894,325	1/16/90	Englehardt, et al.			
Ch	H	4,943,523	7/24/90	Stavrianopoulos			
Ch	I	4,952,685	8/28/90	Stavrianopoulos			
Ch	J	4,994,373	2/19/91	Stavrianopoulos			
Ch	K	5,002,885	3/26/91	Stavrianopoulos			
Ch	L	5,013,831	5/7/91	Stavrianopoulos			

## FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
Ch	M	0 063 879	11/3/82	Europe				
Ch	N	92/10757	6/25/92	WO				
Ch	O	95/15971	6/15/95	WO				
Ch	P	0 234 938	2/26/87	EP (A2)				
Ch	Q	93/10267	5/27/93	WO				
Ch	R	2,090,904	9/24/93	Canada				
Ch	S	0 599 337	1/16/94	EP (A2)				

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Ch. Nagener

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CH	T	5,082,830	1/21/92	Brakel, et al.			
CH	U	5,175,269	12/29/92	Stavrianopoulos			
CH	V	5,241,060	8/31/93	Englehardt, et al.			
CH	W	5,278,043	1/11/95	Bannwarth, et al.	536	23.1	
CH	X	5,312,527	5/17/94	Mikkelsen, et al.	204	153.12	
CH	Y	5,328,824	7/12/94	Ward, et al.			
CH	Z	5,449,767	9/12/95	Ward, et al.			
CH	AA	5,472,881	12/5/95	Beebe, et al.	436	94	
CH	BB	5,476,928	12/19/95	Ward, et al.			
CH	CC	5,595,908	1/21/97	Fawcett, et al.	534	11	
CH	DD	5,565,552	10/15/96	Magda, et al.	534	11	
CH	EE	5,573,906	11/12/96	Bannwarth, et al.	435	6	
CH	FF	5,591,578	1/7/97	Meade, et al.	435	6	
CH	GG	5,601,982	2/1997	Sargent, et al.	435	6	

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EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
	HH	238,166	1988	JP (Abstract 63-238166)				
CH	II	0 229 943	7/29/87	EP (B1)				
CH	JJ	96/40712	12/19/96	WO				
CH	KK	0515615	9/4/96	EP UK				
CH	LL	97/01646	1/16/97	WO				
CH	MM	93/23425	11/25/93	WO				

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*Ch. Kogers*

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EXAMINER'S INITIALS		PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
Ch	NN	4,840,893	6/20/89	Hill et al.	435	6	
Ch	OO	5,403,451	4/4/95	Riviello et al.	204	153.1	
Ch	PP	5,620,850	4/15/97	Bamdad et al.	530	300	
Ch	QQ	5,780,234	7/14/98	Meade et al.	435	6	
Ch	RR	5,770,369	6/23/98	Meade et al.	435	6	
Ch	SS	5,705,348	1/6/98	Meade et al.	435	6	
Ch	TT	5,705,346	1/6/98	Okamoto et al.	435	6	
Ch	UU	5,571,568	11/5/96	Ribi et al.	427	487	
Ch	VV	5,156,810	6/15/89	Ribi	422	82.01	
Ch	WW	5,491,097	2/13/96	Ribi et al.	436	518	
Ch	XX	5,776,672	7/7/98	Hashimoto et al.	435	6	
Ch	YY	5,605,662	2/1997	Heller et al.	422	68.1	
Ch	ZZ	5,632,957	6/1997	Heller et al.	422	68.1	

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EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
Ch	AAA	90/05732	5/31/90	WO				
Ch	BBB	94/22889	10/13/94	WO				
Ch	CCC	97/01646	01/16/97	WO				
Ch	DDD	98/35232	8/13/98	WO				
Ch	EEE	98/04740	2/5/98	WO				

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<b>MAIL DATED</b> MAR 17 2000				APPLICANT BLACKBURN et al.				
				FILING DATE November 12, 1999		GROUP 1643		
PATENT DOCUMENTS								
EXAMINER'S INITIALS		PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
CH	FFF	4,787,963	11/1988	MacConnell				
CH	GGG	5,015,569	5/1991	Pontius				
CH	HHH	5,582,984	12/1996	Bieniarz et al.				
CH	III	5,843,767	12/1998	Beattie				
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EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
CH	JJJ	98/20162	5/1998	PCT				
CH	KKK	96/40712	12/1996	PCT				
CH	LLL	99/14596	3/1999	PCT				
CH	MMM	0 229 442	7/1987	EPO				
CH	NNN	95/11755	5/1995	PCT				
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<i>Ch Negerola</i>				<i>5/24/05</i>				

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8085 1449A.FRM (8/95)

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		FILING DATE November 12, 1999	GROUP 1643
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	1	Albers, W. M., et al., "Design of Novel Molecular Wires for Realizing Long-Distance Electron Transfer," <i>Bioelectrochemistry</i> , 42:25-33 (1997).	
an	2	Allerman, K.S., et al., "Electrochemical Rectification at a Monolayer-Modified Electrode," <i>J. Phys. Chem.</i> , 100:(42) 17050-17058 (1996).	
	3	Aizawa, M., et al., "Integrated Molecular Systems for Biosensors," <i>Sensors and Actuators B</i> , B24 (Nos 1/3) part 1:1-5 (March 1995).	
an	4	Arkin, M., et al., "Evidence for Photoelectron Transfer Through DNA Intercalation," <i>J. Inorganic Biochem. Abstracts</i> , 6th International Conference on Bioinorganic Chemistry, 51(1) & (2):526 (1993).	
an	5	Barisci, et al., "Conducting Polymer Sensors," <i>TRIP</i> , 4(9):307-311 (1996).	
an	6	Baum, R. M., "Views on Biological, Long-Range Electron Transfer Stir Debate," <i>C&amp;EN</i> , pp 20-23 (1993).	
an	7	Bechtold, R., et al., "Ruthenium-Modified Horse Heart Cytochrome c: Effect of pH and Ligation on the Rate of Intramolecular Electron Transfer between Ruthenium(II) and Heme(III)," <i>J. Phys. Chem.</i> , 90(16):3800-3804 (1986).	
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an	12	Brun, A. M., et al., "Photochemistry of Intercalated Quaternary Diazaaromatic Salts," <i>J. Am. Chem. Soc.</i> , 113:8153-8159 (1991).	
an	13	Bumm, et al., "Are Single Molecular Wires Conducting?," <i>Science</i> 271:1705-1707 (1996).	
an	14	Cantor, C.R. et al., "Report on the Sequencing by Hybridization Workshop," <i>Genomics</i> , 13:1378-1383 (1992).	
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an	16	Carter, et al., "Voltammetric Studies of the Interaction of Metal chelates with DNA. 2. Tris- Chelated Complexes of Cobalt (III) and Iron (II) with 10-Phenanthroline and 2,3'-Bipyridine," <i>J. Am. Chem. Soc.</i> , 111:8901-8911 (1989).	
an	17	Chang, I-Jy, et al., "High-Driving-Force Electron Transfer in Metalloproteins: Intramolecular Oxidation of Ferrocyanide by Ru(2,2'-bpy) <sub>2</sub> (im)(His-33) <sup>3+</sup> ," <i>J. Am. Chem. Soc.</i> , 113:7056-7057 (1991).	
an	18	Chidsey, C.E.D., et al., "Free Energy and Temperature Dependence of Electron Transfer at the Metal Electrolyte Interface," <i>Science</i> , 251:919-923 (1991).	
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an	20	Chrisey, et al., "Covalent attachment of synthetic DNA to self-assembled monolayer films," <i>Nucleic Acids Research</i> , 24(15):3031-3039 (1996).	
an	21	Clery, "DNA Goes Electric," <i>Science</i> , 267:1270 (1995).	
an	22	Commerce Business Daily Issue of September 26, 1996 PSA#1688.	
an	23	DATABASE WPI, Derwent Publications Ltd., London, GB; AN 88-320199 & JP, A, 53 238 166 (MITSUBISHI DENKI KK), 4 October 1988.	
EXAMINER		DATE CONSIDERED	
C. H. Nagendra		5/24/05	

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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)			
an	24	Davis, L. M., et al., "Electron Donor Properties of the Antitumour Drug Amsacrine as Studied by Fluorescence Quenching of DNA-Bound Ethidium," <i>Chem.-Biol. Interactions</i> , 62:45-58 (1987).	
an	25	Davis, L. M., et al., "Elements of biosensor construction," <i>Enzyme Microb. Technol.</i> 17:1030-1035 (1995).	
an	26	Degani et al., "Direct Electrical Communication between Chemically Modified Enzymes and Metal Electrodes. 2. Methods for Bonding Electron-Transfer Relays to Glucose Oxidase and D-Amino-Acid Oxidase," <i>J. Am. Chem. Soc.</i> 110:2615-2620 (1988).	
an	27	Degani, Y., et al., "Electrical Communication between Redox Centers of Glucose Oxidase and Electrodes via Electrostatically and Covalently Bound Redox Polymers," <i>J. Am. Chem. Soc.</i> , 111:2357-2358 (1989).	
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an	30	Dreyer, G. B., et al., "Sequence-specific cleavage of single-stranded DNA: Oligodeoxynucleotide-EDTA-Fe(II)," <i>Proc. Natl. Acad. Sci. USA</i> , 82:968-972 (1985).	
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an	35	Fox, L. S., et al., "Gaussian Free-Energy Dependence of Electron-Transfer Rates in Iridium Complexes," <i>Science</i> , 247:1069-1071 (1990).	
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an	37	Francois, J.-C., et al., "Periodic Cleavage of Poly(dA) by Oligothymidylates Covalently Linked to the 1,10-Phenanthroline-Copper Complex," <i>Biochemistry</i> , 27:2272-2276 (1988).	
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an	40	Gardner, et al., "Application of conducting polymer technology in microsystems," <i>Sensors and Actuators</i> , A51:57-66 (1995).	
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PTO-1449

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APPLICANT  
BLACKBURN et al.

FILING DATE  
November 12, 1999

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*Ellie Hagerola*

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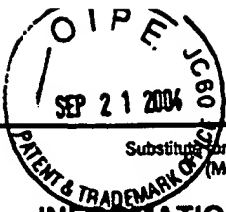
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		Filing Date	November 12, 1999		
		First Named Inventor	BLACKBURN, Gary		
		Art Unit	1753		
		Examiner Name	Noguerola, Alex S.		
Sheet	1	of	4	Attorney Docket Number	A-66566-3/RMS/RMK/SPL (463037-00152)

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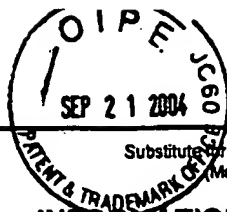
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an	C3	JOHNSTON, D., et al., "Cyclic Voltammetry: Study of Polynucleotide Binding and Oxidation by Metal Complexes Homogeneous Electron-Transfer Kinetics," <i>J. Phys. Chem.</i> 100(32):13837-13843 (Aug. 1996).		
an	C4	KOLB, J., et al., "Small-Scale Acoustic Streaming in Liquids," <i>J. Acoustics Soc. Am.</i> 28(6):1237-1242 (1956).		
an	C5	LECKBAND, D., et al., "Interactions Between Nucleotide Binding sites on Chloroplast coupling Factor One During ATP Hydrolysis," <i>Biochemistry</i> 26(8):2306-2312 (Apr. 1987).		
an	C6	LEE, L.P., et al., "Key Elements of a transparent teflon® microfluidic system," <i>Micro Total Analysis Systems '98 Conference, Proc. <math>\mu</math>-TAS '98</i> , pp. 245-248, Banff, British Columbia, CA (Oct. 13 - 16, 1998).		
an	C7	MIKKELSEN, S., "Electrochemical Biosensors for DNA Sequence Detection," <i>Electroanalysis</i> 8(1):15-19 (1996).		
an	C8	MORONEY, R.M., et al., "Ultrasonically Induced Microtransport," <i>Proc. IEEE Micro Electro Mechanical Sys.: An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots</i> , pp. 227-282, Nara, JP (Jan. 30 - Feb. 2, 1991).		
an	C9	NEDERLOF, P.M., et al., "Quantification of fluorescence in situ hybridization signal by image cytometry," <i>Cytometry</i> 13(8):848-852 (1992).		
an	C10	NORTHROP, M., et al., "A Miniature analytical instrument for nucleic acids based on micromachined silicon reaction chambers," <i>Anal. Chem.</i> 70(1):918-922 (Mar. 1998).		
an	C11	ROONEY, J.A., "Shear as a Mechanism for Sonically Induced Biological Effects," <i>J. Acoustics Soc. Am.</i> 52(6):1718-1724 (1972).		
an	C12	SHAW, T., et al., "Active-Pixel-Sensor Digital Camera on a Single Chip," <i>NASA Tech Briefs</i> 420:44-46 (1998).		

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		Application Number	09/440,371		
		Filing Date	November 12, 1999		
		First Named Inventor	BLACKBURN, Gary		
		Art Unit	1753		
		Examiner Name	Noguerola, Alex S.		
Sheet	4	of	4	Attorney Docket Number	A-66566-3/RMS/RMK/SPL (463037-00152)

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an	C13	WANG, J., et al., "Peptide Nucleic Acid Probes for Sequence-Specific DNA Biosensors," <i>J. Am. Chem. Soc.</i> 118(33):7667-7670 (Aug. 1996).		
an	C14	WASHIZU, M., et al., "Applications of Electrostatic Stretch-and-Positioning of DNA," <i>IEEE Trans. Ind. Appl.</i> 31(3):447-457 (May - Jun. 1995).		
an	C15	WEBSTER, J.R., et al., "An Inexpensive Plastic Technology for Microfabricated Capillary Electrophoresis Chips," <i>Micro Total Analysis Systems '98 Conference, Proc. <math>\mu</math>-TAS '98</i> , pp. 249-252, Banff, British Columbia, CA (Oct. 13 - 16, 1998).		
an	C16	WILDING, P., et al., "PCR in a Silicon Microstructure," <i>Clin. Chem.</i> 40(9):1815-1818 (Sep. 1994).		

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